CLAIMS

1. A method for producing highly crystalline silver powder which is characterized in that mixing a first aqueous solution and a second aqueous solution, wherein the first aqueous solution contains silver nitrate, a dispersing agent and nitric acid, and the second solution contains ascorbic acid.

2. The method for producing highly crystalline silver powder according to claim 1, wherein the dispersing agent is polyvinylpyrrolidone.

3. The method for producing highly crystalline silver powder according to claim 1, wherein the dispersing agent is a gelatin.

4. The method for producing highly crystalline silver powder according to claim 2, the first aqueous solution when it contains 100 parts by weight of silver nitrate, it further contains 5 parts by weight to 60 parts by weight of polyvinylpyrrolidone and 35 parts by weight to 70 parts by weight of nitric acid.

5. The method for producing highly crystalline silver powder according to claim 3, the first aqueous solution when it contains 100 parts by weight of silver nitrate,

it further contains 0.5 parts by weight to 10 parts by weight of gelatin and 35 parts by weight to 70 parts by weight of nitric acid.

6. The method for producing highly crystalline silver powder according to claim 1, when the first aqueous solution contains 100 parts by weight of silver nitrate, ascorbic acid contained in the second aqueous solution to be mixed with the first aqueous solution is 30 parts by weight to 90 parts by weight.

7. The method for producing highly crystalline silver powder according to claim 1, when the second aqueous solution contains 100 parts by weight of ascorbic acid, nitric acid contained in the first aqueous solution to be mixed with the second aqueous solution is 40 parts by weight to 150 parts by weight.

8. Highly crystalline silver powder which is characterized in that the powder is produced by the method according to claim 1.

9. The highly crystalline silver powder according to claim 8, wherein crystallite diameter of the powder is 300 Å or more.

10. The highly crystalline silver powder according to claim 8, wherein an average particle diameter D_{50} of the powder is in the range from 0.5 μm to 10 μm. (where D_{50} is a median diameter (μm) calculated as 50% of volume cumulative distributions examined by a laser diffraction scattering particle size distribution measuring method).

11. The highly crystalline silver powder according to claim 8, wherein a thermal shrinkage rate of the powder after heating at 700°C is in the range from -3% to 3%.

12. The highly crystalline silver powder according to claim 8, wherein a ratio D_{90}/D_{10} of the powder is in the range from 2.1 to 5.0 (where D_{10} is diameter (μm) at 10% of volume cumulative distributions and D_{90} is diameter (μm) at 90% of volume cumulative distributions examined by a laser diffraction scattering particle size distribution measuring method, respectively).

13. Highly crystalline silver powder which is characterized in that a crystallite diameter is 300 Å or more, an average particle diameter D_{50} is in the range from 0.5 μm to 10 μm, and a thermal shrinkage ratio after heating at 700°C in the length direction is in the range from -3% to 3%.

14. The highly crystalline silver powder according to claim 13, wherein a ratio D_{90}/D_{10} of the powder is in the range from 2.1 to 5.0 (where D_{10} is diameter (μm) at 10% of volume cumulative distributions and D_{90} is diameter (μm) at 90% by volume of cumulative distributions examined by a laser diffraction scattering particle size distribution measuring method, respectively).